

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY USSR (Moscow Oblast) REPORT [REDACTED]
 SUBJECT Industrial Plants in the Moscow Area DATE DISTR. 19 December 1958
 NO. PAGES 2
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DATE OF
INFO.
PLACE &
DATE ACQ.

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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

Four reports dealing with industrial plants in the Moscow Oblast

Attachment 1

is a report on the Hammer and Sickle Metallurgical Plant in Moscow and contains information on the plant's buildings and installations, water and power supply, transportation, personnel welfare and working conditions, security, organization and personalities, and miscellaneous operational information. The report also contains an annotated sketch of the plant.

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Attachment 3 is a report dealing with ORGRES, an organization which constructed and repaired electric power stations throughout the USSR and had offices in Moscow. The report contains information about the organization's personnel, operations, and interests as well as an [redacted] organizational chart.

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Attachment 4 is a report dealing with the ZIL Automobile Plant in Moscow and contains information on the plant's products, machine and assembly shop, raw materials, utilities, transportation, security, safety measures, and production deficiencies.



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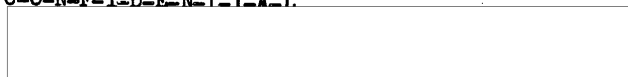
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ZIL AUTOMOBILE PLANT

General description

1. The ZIL Automobile Plant, also called Likhachov and formerly known as the Stalin Plant, was subordinate to the Ministry of Automobile Industry. It was located in the southeastern section of Moscow on Avtozavodskaya ulitsa. Nearby were the Novodanilovskiy bridge and the station of the Ruzhnikovo (sic) railroad, a siding of which ran through the plant premises. The area was surrounded by a two-meter-high wooden fence. Two-meter-high iron gratings were located at each of the three entrances, two of which were on Avtozavodskaya ulitsa; the other faced the bridge.

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about 1946 an unidentified building had caved in, causing considerable damage.

Products

2. The ZIL plant produced straight eight-cylinder internal combustion engines, referred to as model ZIS-110. In one building, which was new, buses were manufactured. shop manufactured cylinder blocks, tie rods, crankshafts, pistons, transmission gear boxes, magnetos, and other parts might be clutches and differentials. The transmission drive shafts were not made in shop. Light engines and parts were almost exact copies of US Packard engines. About 1951 the plant started to make parts for electric refrigerators.

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Machine and Assembly Shop

3. The shop made engines for ZIS-110 light automobiles. It was located in an old one-story rectangular red brick building with a saw-toothed roof, the slopes of which were covered with sheet metal, supported by steel beams. The floor was made of hexagonal wooden blocks. There was no basement. The shop used lathes, milling machines, truing machines, planes, saws, drills, and other machinery.

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The majority was of foreign manufacture. There was also some of Czechoslovak, and German manufacture. The machinery was old and dirty but was well-cared for. The building contained a tool storeroom. The tolerance used for crankshafts was .02 centimeters:

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one used for cylinders was very small. The number of engines produced was small because the plant did not use the assembly-line system for making parts but only for their assembly.

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The products in this shop were not packed, but were conveyed to other shops. Engines were handled by truck or electric cart.

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Raw Materials

4. The crude castings of blocks, machine housings, cylinders, crankshafts etc. were brought from the foundry and finished in the Machine and Assembly Shop. [redacted] raw materials, [redacted] were not imported from other countries. [redacted] the majority arrived by rail.

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Utilities

5. Drinking water and electricity used by the plant came from unidentified supplies. [redacted] shop used 360 voltage. [redacted]

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Transportation

6. Railroad car manipulation was by means of an old-type three-drive-axle steam locomotive. An eight-meter-wide asphalt road, not further identified, had good drainage and was open to traffic at all times. The plant had five-metric-ton trucks and a garage with a repair shop.

Security

7. Secret police guards, sometimes armed with rifles, were stationed at entrances and inside the premises. Two guards were posted at the entrances to check propusks on entering and leaving the plant. Sometimes, at the discretion of the shop chief or director, a pass was required at entrances to certain shops; these measures were intermittently relaxed and enforced.

Safety Measures

8. A fire brigade existed [redacted] antiaircraft precautions [redacted] during World War II [redacted] were put into effect by the Army.

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Production Deficiencies and Promotion

9. [redacted] the production norm was not excessive. However, cars, as well as television and refrigerators, were being made available to a greater number of persons. [redacted] some defects existed within the industry. On some days plant production would almost come to a standstill for want of materials and on other days personnel had to work intensely in order to fulfill the production norms. [redacted] in some cases this was due to defects in planning, i.e., the miscalculation of the capacities of the various production centers.

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1. Comment. The ZIL Plant was first set up by Americans.

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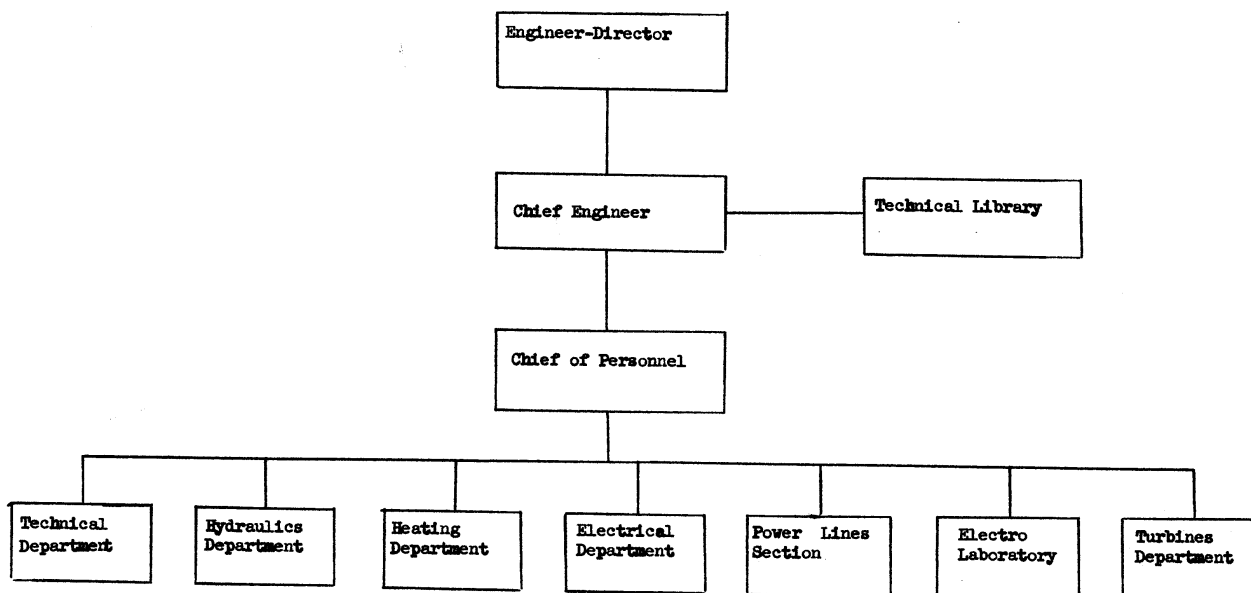
ORGRES, A CONCERN WHICH CONSTRUCTED AND REPAIRED ELECTRIC POWER STATIONS

1. ORGRES, a concern which constructed and repaired electric power stations throughout the Soviet Union, had offices located on Kukuiskiy pereulek 2, Bauman rayon, Moscow; telegraphic address unknown. ORGRES, which was subordinate to the Ministry of Electric Power stations, employed some 600 engineers and technicians and dispatched them to power plants anywhere in the USSR to repair and modernize the plant machinery. ORGRES received more than 150 different technical magazines from France, Germany, Great Britain, and the United States, and these were kept on file in its technical library. The concern performed research on new systems which were written up in the foreign technical magazines and many of its engineers joined delegations which traveled abroad, to [redacted] and Czechoslovakia, for example. 25X1
2. Among the more important and highly-valued foreign publications, [redacted] cited Elektrotechnik from Germany, Mechanical Engineer and Popular Mechanics from the United States, and Engineer from Great Britain; [redacted] also [redacted] a French publication Houille Blanche and another US periodical, Mechanical Chemistry. All the publications were highly prized by the Soviet engineers who referred to them frequently and even tried to adopt some of the modern methods and systems described in them. Soviet engineers displayed considerable interest in articles dealing with the erection of electric power lines in cold regions; they sought a method which would prevent ice from accumulating on electric cables. Many articles, moreover, were translated by the engineers and published in Soviet magazines, and the most important and interesting of the translated articles were printed, bound, and deposited in the ORGRES library archives for reference purposes. 25X1
3. [redacted]
4. [redacted]
5. [redacted]
6. The only Soviet in the ORGRES concern whose name [redacted] recalled was Petr Ivanovich Sokolov, the engineer-director. 25X1

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Organizational Chart of ORGRES



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MALENKOV VALVE AND STOPCOCK PLANT

1. The Malenkov Valve and Stopcock Plant in Moscow [redacted] 25X1
 was subordinate to the Ministry of Machine Building. It was located between Krasnoselskaya Mala ulitsa and the Kazan railroad near the Komsomol subway station, Zhdanovskiy rayon. It was serviced by the No. 40 bus.
 [redacted] this plant was not known by any other name or numerical 25X1
 designation. It was closed in 1955 when it was converted into a technical
 institute. This plant had no secret or underground installations [redacted] 25X1
 [redacted] The products 25X1
 manufactured in this plant were cast iron valves and stopcocks, the largest
 weighing about 1,500 kg and the smallest about 5 kg. The plant did not
 manufacture or repair military equipment. There were 2,000 persons employed,
 80 percent of whom were assembly-line workers.

2. The Malenkov Valve and Stopcock Plant was laid out as follows (numbers in
 parentheses refer to numbers on [redacted] sketch of plant): 25X1

- (1) Garage. This garage housed three light-weight cars and ten trucks.
 (2) Assembly and pattern shops. This was a two-story building. The
 assembly shop (containing 40 lathes), shop chief and control offices
 were on the first floor. The pattern shop (containing 20 "small lathes"),
 living quarters, clubroom, movie, dining room, control office, instru-
 ments section, freight elevator, and repair bench, were on the second floor.
 (3) Machine shop No. 2 and instrument shop. This was a two-story building
 consisting of the following: machine shop No. 2, the testing and control
 sections, and shop chief's office, were on the first floor; the instru-
 ment shop, shop chief's office, technologists, control and instruments
 sections, were on the second floor. The following machines were located
 in this building:

Machine shopInstrument shop

1 cutting machine	4 grinders
2 planers	17 lathes
8 lathes	2 drilling machines
3 grinders	
1 crane (also used on the second floor)	

- (4) Entrance gate.
 (5) Office building. This was a three-story building consisting of the fol-
 lowing: on the ground floor were the personnel, fire squad, and plant
 guard sections; on the second floor were the transportation department,
 assistant director's office, and a repair shop; on the third floor were
 the administrative, Union, Party, and paymaster offices.
 (5a) Plant clinic.
 (5b) Living quarters.
 (6) Machine shop. This was a one-story building consisting of a machine
 shop with an electric welding section and washroom. It contained the
 following machines:

4 lathes (regular)
 2 vertical lathes
 1 large lathe
 1 shearing machine
 1 planer
 4 drill presses
 2 hydraulic meters

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- (7) Repair shop and machine shop No. 1. This was a two-story building consisting of the repair shop, instrument room, work benches, and shop chief's office on the first floor, and machine shop No. 1, shop chief's office, instrument room, fitting section, testing section, and washroom on the second floor. The following machines were located in this building: 25X1

Machine shop No. 1

15 lathes
1 large lathe
1 drilling machine
4 milling machines
1 500-kg traveling crane

Repair shop

9 lathes
2 planers
1 milling machine
2 drilling machines
1 gear cutting machine

- (8) Boiler house. This was a one-story construction.
- (9) Foundry and mold shops. This was a one-story building consisting of the mixing laboratory, finishing shop, shop chief's office, control office, "red corner" meeting room, carpentry shop, pattern shop, and threading section. The following machines were located in this building:

4 mixing machines	14 benches
6 automatic molding machines	1 saw
1 mold finishing machine	1 planer
2 compressed air molding machines	1 lathe
2 furnaces	1 metal turning lathe
1 crane	1 drilling machine
1 Decauville	5 thread cutting lathes
	2 traveling cranes

- (10) Compressor shop. This shop had 4 electric compressors.
- (11) Slag dump.
- (12) Storage for raw materials.
- (13) Warehouse for finished products.
- (14) Forge shop. This shop prepared the material needed in the other shops. It contained the following machines:

2 saws
1 crane
1 tempering furnace
4 steam hammers (5,000 kg, 1,500 kg, 2,000 kg, and 1,000 kg capacities)
2 forges
2 drop hammers.

- (15) Electric transformer section.
- (16) Scrap iron crushing machine.
- (17) Gasoline tank and pump.

Foundry

3.

This was a rectangular-shaped red brick building with high "old style" three-slope roof probably dating back to before the Russian Revolution. It had no basement, was single story, and measured approximately 90 x 50 x 15 meters. At both ends it had mezanines four meters high on which were installed mixers, chutes, and conveyor belts, the administrative and control offices, the carpentry shop, and the mold assembly shop. The shop was not fire-proof. In it valve housings and

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valves or stopcocks of various sizes were cast. These items had no special marks or characteristics. When finished they were gray in color and were then painted blue and black. There were some compressor machines used for preparing and compacting the sand in the molds. There were approximately 12 machines for preparing the various size molds and some mixing machines for crushing and mixing the sand. The mixture was put on a conveyor and taken to the molding machines. The molds were then sent by conveyor to the furnaces. The molten metal was poured from the ladles into the molds by two high-power traveling cranes; one of the cranes was of 1,500 kg capacity and the other of 2,000 kg capacity. The machines in the shop were electrically operated, excepting the molding machines which were operated by compressed air. There were two forced-draught coal furnaces. The shop had two brick smokestacks, each 10 m high. The skylighting system was adequate during the summer months; in winter it was necessary to use electric lighting. The heating system was not adequate. [] the machines were all made in Saratov, but did not know the trademark, plant name or year of make. The furnaces were old and probably of German manufacture, since the plant had been German during the Tsarist regime. The machines were kept in good condition since they were cleaned and greased at the end of each shift. The mold pressing machines were modern, having arrived new at the plant in 1952. The finished products were transported to the warehouse or from one shop to another in electrically-operated cars. From the warehouse, the products were shipped by truck to unidentified destinations. [] the products were for export as well as for domestic use. The total number of workers employed at this shop was 300, 50 percent of which were women; 75 percent were specialized workers. Production was based on weight rather than on the number of parts, daily production being approximately five tons.

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Raw Materials

4. The raw materials were iron, copper, bronze, aluminum, coal, mineral oil, grease, gasoline, water, sand, clay, sawdust, and pitch. No materials were imported from foreign countries. Coal, iron, and clay were transported by rail and the other materials by truck. There was a 30-ton reserve of coal, 30 tons of iron, and 20 tons of clay. The plant's daily consumption was six tons of iron, 10 tons of coal, and 10 tons of clay.

Water and Power

5. There were no water deposits, but an electric pump of unknown capacity was located in the fire house. The plant received an adequate amount of untreated water from Moscow. [] the electric power was supplied from power stations in Moscow since there were only transformers in the plant area. Because the transformers were of low capacity the power supply was inadequate.

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Transportation

6. The finished products were shipped in wooden boxes and marked with the letters ZIM. Transportation was by rail and truck. The railroad ran along the rear of the plant and loading and unloading was done from platforms by means of cranes. There were no sidings within the plant area. []

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The cars were two and four-axle cars of 10,000 kg and 22,000 kg capacities and were painted a reddish-ochre color. The locomotives were old and of little power. Railroad traffic was slow except at the beginning and end of the month when production was at its maximum. The highway servicing the plant was Bolshoye Krasnoseleskoye shosse, a stone and concrete highway with good drainage, which was open to traffic at all times. The plant had three light-weight cars and ten three-ton trucks which were made at the Stalin and Gorkiy Plants. The garage had a capacity for five vehicles; it had a small repair shop.

Storage

7. Approximately 50 tons of coal were stored in a covered area measuring 15 x 10 m;

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30 tons of scrap iron occupied an area 10 x 10 m, and 20 tons of sand occupied an area 5 x 5 m. The warehouses were located in the yard and measured 25 x 8 x 8 m. These were two joined buildings which were not connected with the railroad. Loading and unloading was done by trucks. There were several cans of mineral oil and acids in unknown quantities.

Production Figures

8. The average daily production was approximately five tons; maximum production was eight tons; the production norm was five to six tons.

Working conditions

9. The plant worked two eight-hour shifts; three-fourths of the employees worked during the day and the remainder worked during the night shift. Formerly they worked 48 hours a week but this schedule was later changed to 46 hours a week. The plant did not work on Sundays and holidays and [] had a 21-day yearly vacation. [] The plant had good sanitary conditions. There was a plant fire squad and each shop was equipped with fire extinguishing apparatus and sand pails.

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Security

10. Armed guards were stationed around the plant perimeter. A guard was stationed at each entrance and others were kept near the warehouses. Upon entering or leaving the plant a worker presented his pass bearing his photograph, name of section where he worked, and type of work performed. Access to all sections of the plant was permitted. There were no air raid precautions or shelters. During World War II the subway had been used as an air raid shelter.

Personnel

11. The plant directors were considered efficient, but relations between the plant administrators and the employees were strained, mainly because the workers did not receive their salaries on time. There was no research department but there was a planning section. Each section had a chief of control and several assistants, and had facilities for testing the finished parts. The foundry personnel consisted of the shop chief (an engineer), a technician, a chief who distributed the work, a chief of control, a secretary, a girl who took the attendance, a girl in charge of the work sheets, a mechanic, six masters, three cleaning women, three lavatory attendants, two foundry technicians, and about 250 workers, some of whom were women. [] following individuals:

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Filipov, foundry chief.

Sheniya, plant technician.

12. There were no prisoners or foreigners [] working at the plant. There were no strikes nor was there absenteeism. The work plan was fulfilled satisfactorily and no effort was made to increase production. The plant held DOSAAF meetings on civil defense, but there was lack of enthusiasm and only 30 percent of the workers attended. The Red Cross and Red Crescent also held meetings at the plant.

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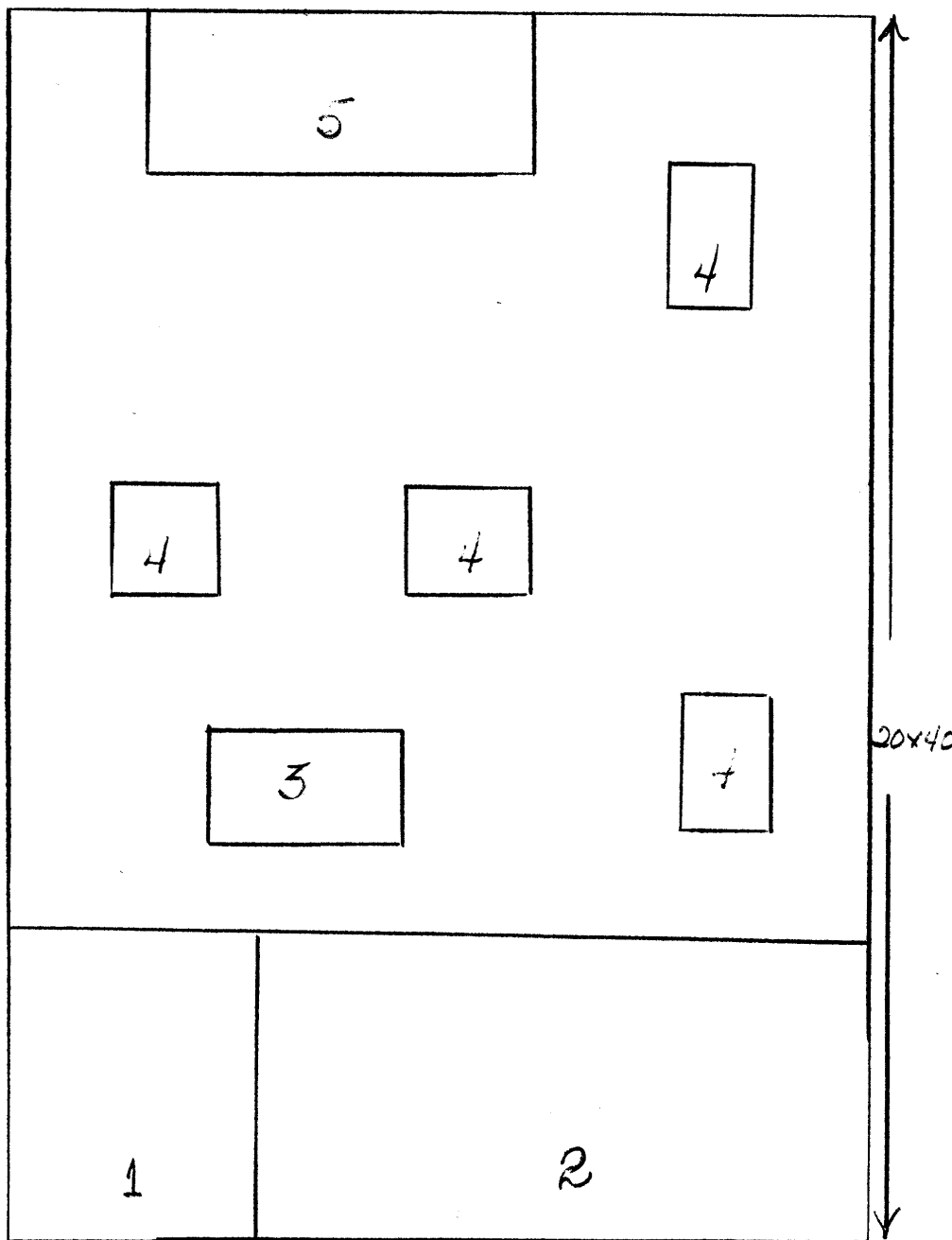
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THE HAMMER AND SICKLE METALLURGICAL PLANT IN MOSCOW

General

1. The Hammer and Sickle Metallurgical Plant, formerly called "Giyon", was located on Zolotorozhskiy Val (number unknown), Kalininskiy rayon, Moscow. It was engaged mainly in the manufacture of steel cable of various caliber and metal plate for car bodies and roofs. The plant, which was subordinate to the Ministry of Heavy Industry, did not manufacture or repair military equipment. It comprised eight one-story buildings and four buildings of more than one story; the plant perimeter measured about 15 kilometers. Surrounding the plant was a two-and-a-half-meter-high wooden fence which rested on a half-meter-high concrete base; the fence was painted green. There were five entrances to the plant. On the north, the plant area was bounded by Zolotorozhskiy Val; on the east, by several railroad lines which were used to transport freight to various plants in Moscow; on the south, by Entuziastov shosse; on the west, by a steel bridge which connected Zolotorozhskiy Val and Entuziastov shosse (see sketch on page 7). None of the plant buildings were of recent construction.

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Buildings and Installations

2. Set forth below are descriptions of the buildings which made up the plant. The numbers in parentheses below correspond to the numbers which appear on sketch of plant layout on page 7.
- (1) Compressor station. This was a three-story, rectangular-shaped, tin-roofed, fireproof, brick building measuring 25 x 10 x 2.8 meters. It had a partial basement occupying about one-fourth of the building site, where the shower stalls for plant personnel were housed. On the ground floor were installed two German-make compressors in good repair which supplied compressed air to shops numbered 10, 11, and 12 on sketch. On the second floor were dressing rooms for plant personnel. The administrative offices occupied the third floor. About 25 people worked in this building.
- (2) Rolling mill. This was a two-story, tin-roofed, rectangular-shaped, concrete building without a basement; it was fireproof. The shop produced iron and steel plate (quantity unknown) which were used to make the bodies and tops of vehicles. The plate varied in thickness from one to three millimeters and measured 1 x .80 meters. The machinery used in the shop was old and poorly maintained. Between 800 and 900 workers were employed in this building.
- (3) Plant clinic. This was a two-story, tin-roofed, fireproof, rectangular-shaped brick building, measuring 50 x 5 x 4 meters; it had a basement where the health records of the workers were filed. The clinic was modernly equipped with such apparatus as X-ray, and electrotherapy and gas-therapy appliances. The nursing and medical staff consisted of about 50 nurses and 30 doctors, including heart and lung specialists, cancer specialists, eye-ear-nose, and throat specialists, and specialists in venereal diseases.

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- (4) Foundry. This was a one-story, tin-roofed, fireproof, rectangular-shaped, concrete building with a basement. It was equipped with four Soviet-make Martin Siemens furnaces which were in good repair. Daily production of each furnace was three or four batches of ingots, each batch weighing about 74 metric tons. Three of the furnaces were in constant use. The foundry employed about 700 workers.
- (5) Wire-drawing shop. This was a one-story, tin-roofed, rectangular-shaped, fireproof brick building without a basement. The shop produced wire, from one to three millimeters in thickness, by the cold process. The machinery was old and poorly maintained.

 in this shop. The wire was transferred from this shop to shop No. 10 (see below) for finishing.
- (6) This was a square, four-story, fireproof, concrete building (dimensions unknown) with a basement where the heating boilers were installed. The first floor housed a machine shop which contained the following Soviet-make equipment: a universal lathe, an electric saw, a shearing device, a drilling machine, a polishing machine, and a milling machine. All the machinery was in good state of repair. On the second floor was the technical library from which employees could borrow technical books for reference purposes. On the third floor was a laboratory equipped with various kinds of precision apparatus for measuring and analyzing steel wire. Located on the fourth floor was the plant hospital, with room for 50 patients. About 500 employees worked in this building.
- (7) Rolling mill. This was a one-story, tin-roofed, rectangular-shaped, fireproof, concrete building without a basement. Here the iron and steel ingots brought in from the foundry were rolled into plates and bars of varying thicknesses. The shop had four mills: (a) a type 750, which produced plates of 450, 300, and 250 millimeters in thickness; (b) a type 450, which produced quadrangular, round, and hexagonal-shaped steel cable; (c) type 300, which produced wire eight to twelve millimeters in diameter and type 250, which produced wire three to five millimeters in diameter. All the mills were old and in poor repair. The production figures are not known, but all of the products produced by the type 750 and 250 mills were utilized within the plant, whereas a small amount of the products of the other two mills were shipped outside of the plant by train or truck. The shop employed about 2,000 workers.
- (8) Machine repair shop. This was a tin-roofed, one-story, rectangular-shaped, fireproof, brick building without a basement. All the plant machinery was repaired in this shop, which contained the following machinery: a small Krasny Proletariy lathe, a mechanical saw and a small drilling machine of Soviet-make, a grinding machine, a polishing machine, and a forge. All the machinery in the shop was well-maintained. The shop employed 25 workers, including an electrical engineer, who was the chief of the shop, two master electricians, four assistant electricians, six expert welders, six fitters, a boiler operator, a lathe operator, and four unskilled workers.
- (9) Machine shop. This was a tin-roofed, one-story, rectangular-shaped, fireproof, concrete building without a basement. Rollers and washers, for use within the plant itself, were manufactured in the machine shop which had the following machinery: 40 lathes of various calibers, 15 milling machines, eight drilling machines, and four large and three small planers. The machinery was of Soviet and German make and poorly maintained. The shop employed about 500 workers.

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10. Steel-cable manufacturing shop. This was a metal-roofed, one-story, rectangular-shaped fireproof, concrete building, 120 x 8 x 5 meters in size, without a basement. The shop was equipped with three small, and three large machines for coiling the cable. These machines were in poor state of repair. This shop employed about 800 workers.

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the steel cable produced in this shop was shipped by rail to China, Czechoslovakia, Bulgaria, Rumania, and Poland, in addition to all the republics of the USSR.

11. Wire-drawing shop. This was a metal-roofed, one-story, rectangular shaped, fireproof, concrete building, 120 x 8 x 5 meters in size, without a basement. In this shop, steel bars 10 mm. to 20 mm. in diameter (brought from mill No. 7), were drawn into wire with quadrangular, hexagonal, and circular cross sections. The equipment consisted of four large and three drawing blocks. This equipment was old and defective. The finished products from this shop were shipped by rail to China, Rumania, Bulgaria, Poland, Czechoslovakia, and all the republics of the USSR.

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The shop employed about 1,000 workers.

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12. Casting shop. This was a metal-roofed, one-story, rectangular-shaped fireproof, concrete building, measuring 150 x 20 x 6 meters. It had a basement which was kept locked permanently. This shop made castings for bridges and rolling mills. It also cast railroad switch parts, engine blocks, compressor fly-wheels, steam boilers. It was equipped with three 20 MT Martin-Siemens furnaces and two "revolving" electric furnaces, all which were in good condition.

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All the products were utilized within the USSR and were shipped from the plant by rail. The casting shop employed about 1,800 workers.

Water and power supply

3. There were no pumping stations or water reservoirs in the plant area; all the water came from Moscow via underground pipelines.

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Transportation

4. Two Soviet broad-gauge sidings entered the plant area (one on the east side and the other on the west), and these connected with the Gorkiy-Ural Mountain Railroad line. Within the plant area itself were two sidings which were used to transport products from one shop to another. Shops numbered 2, 5, and 9 had wooden loading platforms, and shops numbered 10, 11, and 12, had concrete loading platforms measuring 20 x 5 meters.

25X1

about 85 percent of the incoming and outgoing material was transported by rail; the other 15 percent was transported by trucks which used the Gorkiy-Moscow Highway which was open to traffic throughout the year. The plant had 13 Stalin trucks, of one-and-a-half, three, and five-metric-ton capacity, and six passenger cars. Two of the latter were assigned to the emergency medical service and the others to the cashier, the chief transport engineer, and Partog respectively.

C-O-N-F-I-D-E-N-T-I-A-L

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C-O-N-F-I-D-E-N-T-I-A-L

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Miscellaneous Operational Information

5. The plant employed about 10,000 workers, the majority of whom were craftsmen; no prison labor was used.

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All the raw material (lime, cement, paint, wood, gasoline, oil, coal, and gas) came from the Soviet Union and about 85 percent of it was shipped to the plant by rail. The plant had only open storage facilities, and most of the raw material was delivered directly to the shop where it was utilized.

25X1

there was no shortage of work material or machinery and no difficulties were experienced in turning out an average amount of good quality products.

25X1

the regime made no effort to step up the plant's production. In 1956, plans were being made to enlarge the wire calibrating shop (No. 11) and the casting shop (No. 12) and to enlarge and provide an outside exit for the foundry. Because the plant was becoming a health menace, plans were also in the making to transfer it to a location far removed from the city of Moscow. the plant was not suitable for and could not be converted to military production.

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Personnel Welfare and Working Conditions

6. The plant employees worked every day except Sundays on an eight-hour, three-shift schedule, from 0800 to 1600, from 1600 to 2400, and from 2400 to 0800. The following holidays were non-working days: First and 5th January, 8th March, 1st and 2nd May, and 8th November. Workers in the foundry, the rolling mill, and the air compressor station received an annual vacation of one month and all other employees, 24 days. They all received their vacation pay in advance. Strikes never occurred in the plant, there was no absenteeism, and never any complaints. Outstanding workers received a bonus of from 100 to 500 rubles.

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Plant Security

7. No security measures were taken within the plant (the employees had free access to all shops) or in the immediate surrounding area. Guards were stationed at the plant entrances, however, and a propusk was required in order to enter and leave the plant. Employees, garbed in black uniforms without badges, guarded the railroad entrances which led into the plant area and to the casting shop (No. 12 on sketch). There were a total of 75 guards in the plant, 20 of whom were on permanent service; they were armed with rifles. The plant had no fire station, but there were fire hoses, large sand boxes, and fire extinguishers (one extinguisher for each ten-square-meter area) on the premises. From time to time members of the Moscow fire station visited the plant. There was no air raid defense system; however, two air raid shelters were located in the basements of the buildings housing the plant clinic (No. 3 on sketch) and the casting shop (No. 12 on sketch). First aid stations were located in shops numbered 2, 4, 5, 6, 7, 9, 10, and 12.

Plant Organization and Soviet Personalities

8. The director of the plant was Ulin.

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Directly subordinate to him were the chief engineer, the head of the labor unions, and the plant's Communist Party leader. Two Soviets who worked in the plant and whose names were:

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Invenchev, Nikolai -- the chief engineer in the compressor station.



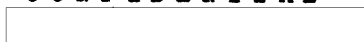
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**Ermolayev (fnu) -- the chief engineer in the wire-calibrating shop.
Ermolayev, [redacted] sometimes substituted for the plant
director**



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